

PARTIAL PRESSURE SUIT TRAINING SCHEDULE

First Day

0800-1200 Lectures on atmosphere, hypoxia, hyper-ventilation, trapped gases, decompression sickness and oxygen equipment.

1200-1300 Lunch

1300-1500 Type II chamber flight and rapid decompression.

1500-1700 Both students suited up for session on MQ-1 training console. Suits pressurized to 5 psi/50 mmHg, 10 psi/100 mmHg and 15 psi/150 mmHg for five minutes each, with five minutes at safety pressure only between each pressurization. Students will wear suit No. 1.

Second Day

0800-1000 Personal equipment briefing on suit, helmet and seat kit.

1000-1030 Student suited up in No. 2 suit.

1030-1130 Prebreathing at ground level and suit checkout at 5/50, 10/100 and 15/150.

1130-1215 Chamber flight - Profile A.

1230-1330 Lunch

1330-1530 Observe Student No. 2.

Student No. 2

0800-1000 Same as Student No. 1.

1000-1230 Observe Student No. 1.

1230-1330 Lunch

1330-1400 Student suited up in No. 2 suit.

1400-1500	Prebreathing at ground level and suit check out at 5/50, 10/100 and 15/150.
1500-1545	Chamber Flight - Profile A.
1600-	Free
<u>Third Day</u>	<u>Student No. 1</u>
0730-0800	Student suited up in No. 1 suit.
0800-1000	Prebreathing at ground level and suit check out at 5/50, 10/100 and 15/150.
1000-1300	Chamber Flight - Profile B.
1300-1400	Lunch
1400-1700	Observe Student No. 2.
	<u>Student No. 2</u>
1030-1130	Lunch
1130-1200	Student suited up in No. 1 suit.
1200-1400	Prebreathing at ground level and suit check out at 5/50, 10/100 and 15/150.
1400-1700	Chamber Flight - Profile B.

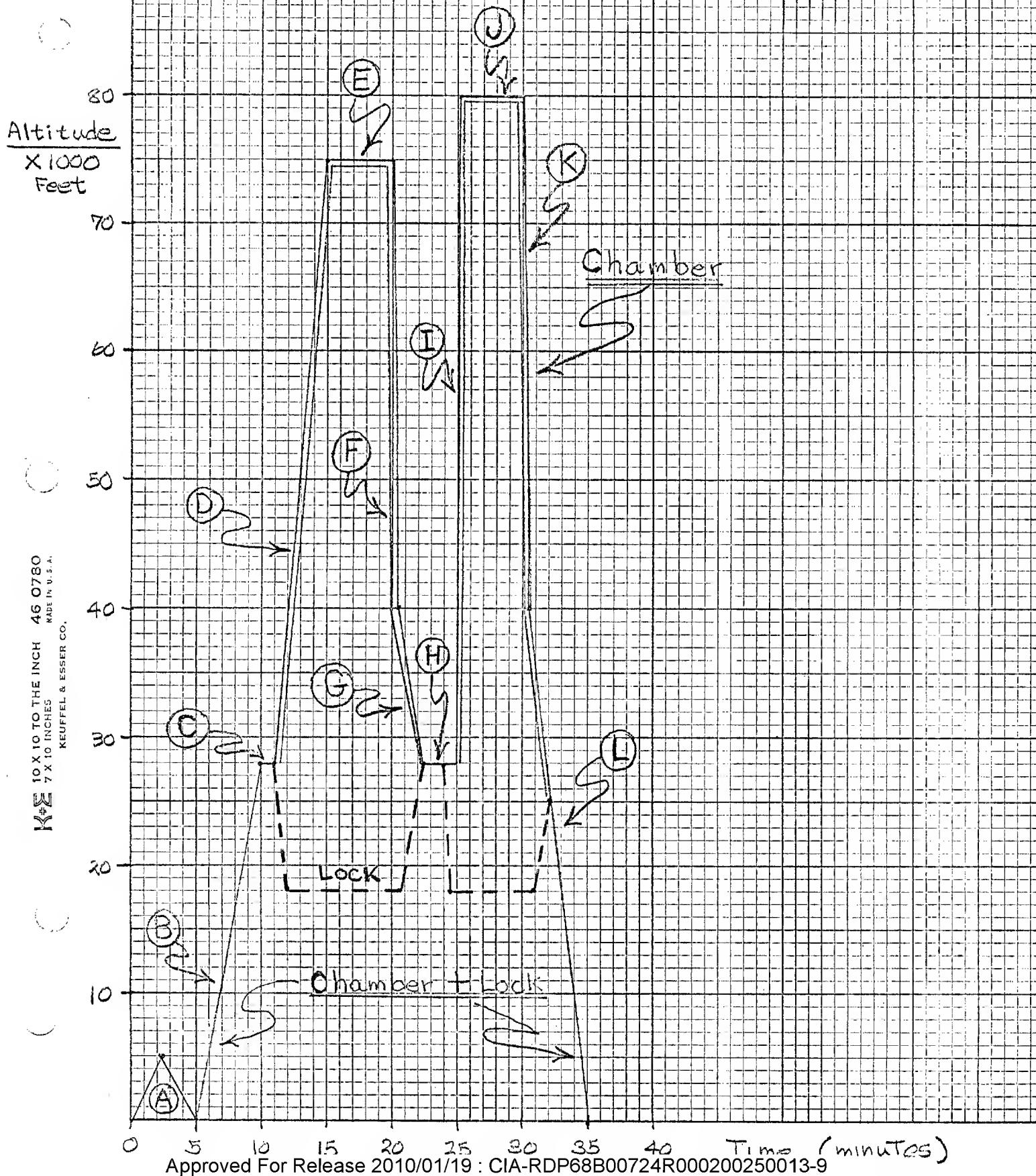
Flight Profile A -- Details of Flight
(refer to graph)

- A. Ear Check: Ascent to 5,000 feet and return to ground level to insure that the student can equalize pressures, preferably with his facepiece closed. Approximately five minutes with descent rate not to exceed 2,000 feet per minute.
- B. Ascent to 28,000 feet: Ascent rate of approximately 5,000 feet per minute.
- C. Press-to-Test at 28,000 feet: Level-off at 28,000 feet for one minute to check all equipment and connections. Student performs a press-to-test.
- D. Ascent to 75,000 feet: Ascent rate of approximately 10,000 feet per minute. Lock observers descend to 18,000 feet and level off.
- E. Mobility Check at 75,000 feet: Level off at 75,000 feet for five minutes. Student will check mobility, maneuverability and suit/helmet comfort at this altitude.
- F. Free-Fall to 40,000 feet: Maximum rate of descent to 40,000 feet.
- G. Descent from 40,000 feet to 28,000 Feet: Descent rate of approximately 6,000 feet per minute. Lock observers ascend to meet student at 28,000 feet.
- H. Equipment Check at 28,000 feet: Level-off at 28,000 feet for approximately three minutes while observers check equipment and student performs a press-to-test. Observers return to 18,000 feet prior to R.D.
- I. Rapid Decompression to 80,000 feet: The student will be forewarned of the decompression, which will be performed after the observers level-off at 18,000 feet.
- J. Mobility Check at 80,000 feet: Level off for five minutes at 80,000 feet. Student will check mobility, maneuverability and suit/helmet comfort at this altitude.
- K. Free-Fall to 40,000 Feet: Descent at maximum rate to 40,000 feet.

L. Descent to Ground Level: Descent rate of approximately 8,000 feet per minute from 40,000 feet to ground level. Lock observers join chamber at 25,000-30,000 feet to assist student. Student removes facepiece at 10,000 feet on descent.

a. 1 hr. prebreathing before entering chamber

b. 2 inside Observers in lock



FLIGHT PROFILE B - - - Details of Flight
(refer to graph)

- A. Ear Check: Ascent to 5,000 feet and return to ground level in approximately five minutes. To insure the student can equalize pressures, preferably without opening facepiece. Descent rate should not exceed 2,000 feet per minute.
- B. Ascent to 35,000 Feet: Ascent rate should be approximately 7,000 feet per minute.
- C. Equipment Check at 35,000 feet: Level-off at 35,000 feet for approximately five minutes. Inside observers will check all equipment and connections. Student will perform a press-to-test at this time.
- D. Ascent to 75,000 Feet: Ascent rate should be approximately 8,000 feet per minute. Lock observers descend to 18,000 feet and remain at that altitude.
- E. Mobility Check at 75,000 feet: Level-off at 75,000 feet for ten minutes. Student will check mobility and maneuverability at this altitude.
- F. Descent to 28,000 Feet: Descent rate should be approximately 9,000 feet per minute.
- G. Mobility at 28,000 Feet: Level-off at 28,000 feet for 35 minutes. Student will check mobility, maneuverability and suit/helmet comfort during this period. Lock observers will ascend, check equipment, observe a press-to-test, and return to 18,000 feet prior to the R.D.
- H. Rapid Decompression to 80,000 Feet: An unannounced rapid decompression to 80,000 feet will be conducted after 35 minutes at 28,000 feet.
- I. Mobility at 80,000 Feet: Level-off at 80,000 feet for one hour. Student will check mobility, maneuverability and suit/helmet comfort during this period. Just prior to descent the student will activate his emergency oxygen supply and then turn off his ship's supply.
- J. Descent on Emergency Oxygen: Descent will be made at approximately 3,000 feet per minute to 20,000 feet utilizing emergency oxygen. Lock observers will join

the student at 25,000 - 30,000 feet and assist in switching back the ship's oxygen as the emergency supply becomes depleted.

K. Descent to Ground Level: Descent rate will be approximately 3,000 feet per minute. Student will remove face piece for final descent from 10,000 feet to ground level.

a. 2 hrs prebreathing prior to entering chamber

b. 2 inside observers in Lock

